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Atty. Docket No. LSBC-Hanley-0195

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

HANLEY, *et al.*

Application No.: 10/620,669

Filed: July 16, 2003

Title: **Inhibition of Peptide Cleavage in Plants**

Continuation of:

Application No. 60/396,396, Filed: 7/16/2002

Art Unit: 1632

Examiner:

MS Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

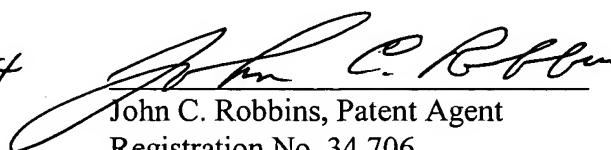
**Statement that the Content of the Official and Computer
Readable Copies are the Same Pursuant to 37 CFR 1.821(f)**

Dear Sir:

I hereby state that the information recorded in computer readable form is identical to the written sequence listing.

Respectfully submitted,

Date: Jan. 27, 2004


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Vacaville, CA 95688
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SequenceListing.ST25
SEQUENCE LISTING

<110> Large Scale Biology Corporation

<120> INHIBITION OF PEPTIDE CLEAVAGE IN PLANTS

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<140> 10/620,669

<141> 2003-07-16

<150> 60/396,396

<151> 2002-07-16

<160> 40

<170> PatentIn version 3.2

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gctagccTCT	ttggTTATGC	tgctggcaca	gcacgtggga	tggcttcaca	tgcaagagt	840
gctgcata	aagtatgtt	ggctggagga	tgttttagca	gcgacatact	agcagggatg	900
gatcaggccg	tcatagatgg	tgtAAATGTA	ctctcactgt	cccttggtgg	cacaatttct	960
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tggataacta	ctgttagtgc	ggggaccatg	gaccgcgaat	tcccagcata	tattgcctt	1140
ggaaatggaa	aaaaattcag	tggagtatca	ctttacagt	gaaaagcatt	acctagttct	1200
gtgatGCCAC	ttgtgttatgc	tggaaatgcc	agccaagcat	caaatggcaa	tttatgcaca	1260
agtggtagtc	tgattccaga	aaaagttgat	gggaaaattg	tagtatgt	gagaggatg	1320
aatgcAAGGG	cacagaagg	tttggTTGTC	aaagatgctg	gtggaatagg	gatgatttt	1380
gcaaacacag	actcttacgg	agatgagtt	gttgctgatg	cmcatactcat	accaacaggt	1440
gcagttggTC	aaactgctgg	tganttgatc	naaaggta	ttgcttctga	cagtaatcca	1500
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gcttttagtt	ccagagggcc	aaacccaatc	acaccggaga	tccttaaacc	agatttgata	1620
gcaccaggTG	tcaatattct	tgctggctgg	acaggaaaag	ttggaccaac	aggTTGCCA	1680
gaagacacca	ggaatgtggg	tttcaacatc	atctctggaa	cttccatgtc	atgtcnccat	1740
gtaagtggc	ttgcagcant	actgnaagcc	gcccatccag	aatggagtt	aggggtntata	1800

SequenceListing.ST25

aggtcagcac	tgtactac	aggta	cac	aca	aga	atgg	nnaa	at	gat	agg	gat	1860		
gttgccacag	gaatgtcata	tacacc	agg	ttt	gat	cat	ggcg	ctgg	aca	atgt	aatcc	1920		
gcagctatga	atcctgggtt	agkgtat	gtat	ctc	acag	ttt	atgactat	aaact	tcctt	aa	act	1980		
tgccgcctgg	attacagtcc	aagtat	gatc	aagg	tcat	cg	caa	agg	cgaga	tat	ttc	2040		
gnaaacaata	aggatataga	gtt	gctgacc	tta	attaccc	atc	ttt	gccc	attc	c	ttt	2100		
aaacgggcct	ggggcgaaca	tgca	aaat	agt	gatc	acc	aa	cagt	gacc	atata	acgagg	2160		
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acctacactg	tgacattcac	tg	c	tat	ttcc	aag	ccat	tc	gac	act	tag	cttcga	2340	
ctggaatgg	cagatggaca	acat	gtt	gtt	gct	atccc	aa	tt	gctt	cag	ttgg	gacat	2400	
ttatgcta	at	tata	agg	t	ttc	act	tg	ca	aaat	att	cctata	aaaat	2460	
aattactagt	gtgcagcagc	tac	tc	c	tct	c	ta	at	cc	act	aa	atgc	2520	
cctataatta	agatgcctag	gaa	att	c	tct	ca	gac	agg	aaat	gt	ttg	attt	2580	
gtccagcaaa	agacagg	gt	ttt	act	tg	cc	ag	att	tat	gt	acca	agcc	acacaat	2640
gataaataca	attggctt	tc	aaaa	aaaa	aaaa	aaaa	aaaa	aaaa	aaaa	aaaa	aaaa	aaaa	2691	

<210> 11
<211> 2188
<212> DNA
<213> Artificial Sequence

<220>
<223> Expression homologous to Alnus glutinosa, s52769 subtilisin-like proteinase ag12

<220>
<221> misc_feature
<222> (2159)..(2159)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (2161)..(2162)
<223> n is a, c, g, or t

<400> 11
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tacaaggcca tcaagaattc tctagggtat gtttcttcga tggaggacag gacagttaaa 120
attcacacga cccattcatc ccatttcctt ggcctaagct caatgtatgg ttcatggcca 180
aagtcaaact atggcaaagg tgttatcatt ggtgtatgg atacagggtt ttggccagag 240
attaaaagct ttgatgatga tggatgagc caagttccat caaggtggaa aggaatatgt 300
caaactggca ctcagttaa ttcttcattt tgcaacaaga aactcatcg agctcggtac 360

SequenceListing.ST25

ttcaataaaag gactacttcc taaagtaaaa aatcttacca tcatacgataaa ttctgcccgt	420
gatacagagg gacatggAAC tcatacttcc tctacagctg ctggaaGTCT tgtAAAGGGT	480
gcgtcttatt ttggctatgc ccctggTTTT gcaataggcg tcgcaccaat ggctcatgtg	540
gctgtgtaca aggctctctg ggatggggcc ggtaccattt ctgatattct tgctgcattg	600
gatcaggcaa ttgcggatgg ttgtgatATC ttatccttgt cattggcgc agtttcTCCA	660
ttccctctat atatagatCC tatctctatt gcttcatttt ctgcaatggA gaaaggcata	720
tttggTTTCCG tttcagCTGG aaatgaAGGG ccttgcATC aatcttGAG caatgaggca	780
ccttggTTTC tctctgttgc tgctagcaca gttgatCGGG acgttATCAG gatattaACT	840
cttggtaatg gagtttCAGT cactggTTA tctctctacc ctggaaATTc tacaAGCgAT	900
atttctgtta ttcttGtCAA gaattgCTTA gataAGCAGG aattgcaAAA tgTTACAGAC	960
aaatttGtgg tctgcattGA caaaaACGCA ttggTCGGGA aacaAGTTGA aagtGtGAGA	1020
cattcaaATG ctgctggTGC tgtCTTCATA acaaATGACT ttgtcactGA ctggggCGAA	1080
tacctcaAAA cagaattCCC atctgtGTTT ctgaatttCC AAAatGGTGA tcaagtTTG	1140
aaatatGtta acagcactTC ttCACCAAAA gcaaAGATTG gacttcaAGG gacactaATT	1200
ggTGTGAAc gagcAccAGC tgTcGcGAT tttAGTTcGA gggggccATC aatgacCTGc	1260
ccgTTTATCC tcaaACCTGA CCTGATGGCT ccaggTcACT taataCTAGC ttcatGGTCT	1320
ccactatCAT ctgtgAGTCC atataCTGAA CTTcACAATA tCTTAAcAT tataTCTGGC	1380
acatccatGT catgtccACA cgctGCCGt gtagctGcAc ttGTTAAAGG gaccCACCt	1440
gaatggAGCC cagctGCCAT tcgttCGGCC atgatGACTA cagcggATGT tctagacaAC	1500
acacAAAGTC cgatCCAAGA catcggtcGT ccagAGAATG ctgctGcTAC tcctCTTGT	1560
atgggAGCTG gCCATATCAA tcctaACAAG gcaatAGATC ctggACTCAT ctatGATAcA	1620
acaccACAAG attacattAA tCTTCTTGT gctctaAAATC tcacatCCGA gcAGATAAAA	1680
accatCActA ggtcCTCTTA tactGCCCC AACCCATCAT tggacctAAA ctatCCATCT	1740
ttcatGcCT atttcaACGT gaatAGCAGC gagttGGATC ctacaAGAGT acaAGAAATTc	1800
aaggAGACAG tgactaatGT cggAGAGGT gtgtCGGAAT atacAGCCGA gctgactGcA	1860
atgcCTGGAC ttAAAGTTAG tGTTGTTCCt gaaaAGTTGG ttttcaaAGA caagtATGAA	1920
aagcaaAGCT acaAGCTGAG gatAGAATGT ccacaACTGA tGAATGATTt ctGgTTcat	1980
ggttCTTAA gctgggtGGA aaAGGGAGGT aaATATGTAG ttaggAGCCC aattGTTGCC	2040
acaaATTCTT aagtttgATC CTTGACAGG atAGTACTGA ttACTGAATA ttCCACTAAA	2100
catgtCTTTT gagaACATGA tatataCATA CTTGTGAAGT gtGTTCTAT ggttcACANT	2160
nnaaaaaaaaaaaaaaaa aaaaaaaaaaaaaaaa aaaaaaaaaaaaaaaa	2188

SequenceListing.ST25

<210> 12
<211> 1481
<212> DNA
<213> Artificial Sequence

<220>
<223> Expression homologous to A thaliana, AAD12260 subtilisin-like protease

<400> 12
ctccgatcga aatcctaagt ctaaattgcc aagtttgcta gagccagaaa tctctcaagt 60
gcccagaagc cttgagcgcg aggtgcctgg ccttaatctcg aaagctttat tgatgaagaa 120
ttgggaccaa ttccatctaa gtggagaggg atttacccaa ataattctga tcacaccctt 180
tagtgcacaa ggaagcta at tggagcaagg tacttcaacg aaggatacgt gactctagca 240
agatctctca attcaagttt ctacacacca cgagacactg atggacatgt ttcccacacg 300
cagttcaagg atcaagtgtt tcccggtatg gaaatggaac agcaaagggt ggatcaccaa 360
aagtaagagt agcagcttac agagtttgct ggcctccaat tatggcagt gggtgcttg 420
attcagatat cttgggtgct tttgatttgg taattgtatga tggcgtggac gtgcatttcag 480
tctcacttgg aggagatact ggagcatatg tcaatgactc tgttagctatt ggttcatttc 540
atgttgttaa gcacggcatt gttgtcgta cctctgctgg taactcgtcc tggcccgg 600
acaatacgaa aaaattgcac cttggctcat aactgttggc gcgagaacta tggattgtca 660
gtttcccagc tatatcattt taggaaacaa aaagcagttac aatttggaaac actgccccaa 720
tgcatgttct tccctattat aaatgttgct tcagcaaaag ctccccatgc ttcaactgac 780
gatgctctct tatgcaaagc tggggcattt gacccaaaga aggtaaaggt aactatttt 840
gtttgtctaa gaggagataa tacgagggtt gacaaggac agcaagctgc tttggcaggt 900
gcagttggaa cgattcttagc caacgattat gcatctggcg atgaaatttt tgctgattct 960
ctctcgctt acctgctacg caaattagtt acactgatgg acttgaactc tttagttcaa 1020
caagtatacc tacagcttcc attacacatc caacgactta attggaaaca aagccagctc 1080
cagtcatagc agcctttca tcaataggac ctaacactgt tacactggag atccttaagg 1140
ttttacgcag gttcatgatt ttttgcacacg acatctttc ttgaaagatc aggaaacgac 1200
atctttctt gaaagatcg gaacctgaag tctgaagaag ctatgctga agaatatgcg 1260
gagcaagttg aagcacaata tagttttgt tctgttagta gcagttaaa gatttgtca 1320
tttgcacatc gtgtatagtt ctaatgtctg tttttaggag ttgataaaaa tagtgcatt 1380
caatttgctt aggtatattt attgacattt tgatccttcg gtttttata atgaacaatg 1440
aaattttgtg gaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa a 1481

<210> 13

SequenceListing.ST25

<211> 1193

<212> DNA

<213> Artificial Sequence

<220>

<223> Expression homologous to Tomato, CAA07250 serine protease

<400> 13

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aatcggtttc	aggacggttc	aactaaatca	gccgatgctc	atgtccttcc	ggccctggat	120
gtttcatttt	tttatggatt	tcaaattact	gagtatatga	aatcaacaaa	gaatcctgtt	180
gctagaatta	cattccaagg	aacgataata	ggcgataaaaa	atgctccagt	gcttgctgg	240
ttttcatctc	gcggaccaag	cacagctagt	ccttggatct	tgaaacctga	tattattgg	300
ccttgggtta	atgtccttagc	agcttggcct	acttctgtcg	aaaacaaaaac	caacaccaaa	360
tcaacattca	acataatttc	cggtagctct	atgtcatgtc	ctcaccttag	cgagttgca	420
gcattgttaa	aaagcgcgca	ccctacttgg	tcccctgcag	ctattaaatc	agcaatcatg	480
acaaccgctg	atacagtcaa	cctcgccaac	aatcccataat	tagatgaaat	gctccgtcct	540
gcaaacatct	ttgccattgg	tgcaggacat	gtcaatccat	cacgagcaaa	tgatccagga	600
ctagttacg	atacacaatt	caaggattac	atatcttatt	tatgtggttt	gaaatacaca	660
gatcgacaga	tgggaagcct	tctacaacgc	agaacaagtt	gctcgaaagt	gaaaagtatt	720
cctgaaggcac	aactcaatta	cccttcgttt	tccatccac	ttggagcaaa	tcaacaaaca	780
tacacaagaa	cagtgacaaa	cgtcgggag	gcaatgtcat	cttacgcgt	gaagatagtt	840
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cagaagttga	cataccgagt	gacattttcc	acaacaacaa	acatcacaaa	catggagtt	960
gttcatggat	acttgaaatg	gacaagtgtat	aagcattttg	taagaagtcc	aattgctgtt	1020
attctacaag	agcatgaaac	accagaagat	tagtgtttt	acttttaat	aatttgttca	1080
atttataata	accccgattt	aattgattgt	atccaaaatg	tagaatgagt	gcaaaaattg	1140
ctcatgtttt	attctactgg	tgtatattcc	cttgggttaa	aaaaaaaaaa	aaa	1193

<210> 14

<211> 748

<212> DNA

<213> Artificial Sequence

<220>

<223> Expression homologous to Tomato, T06580 subtilisin-like proteinase p69f

<400> 14

ggcgtgatta	tcggagttat	agacactgga	attgttctg	accatccttc	attttagcgac	60
gttggatgc	ctccctccgcc	tgctaaatgg	aaaggatttt	gtgagtctaa	tttcacgacc	120

SequenceListing.ST25

aagtgtaca	acaaactcat	tggagccagg	tcttccgc	ttgacaatgg	tcccata	180	
gaaaatggac	atggtacgca	tacagcaagc	acagctgcag	gagccttgt	gaaagggtct	240	
aatgtattt	ggaatgcca	tggaacagca	gttggtgtt	cccccttgc	gtacata	300	
atataaagg	tatgcggttc	tatggcg	tgttctgat	ttgaaat	ttt agctgcgat	360	
gatgtagcta	ttgtatgtt	cgtatgtt	ctatcaat	cccttgg	ttt aacttagtaat	420	
ccgttccata	atgacaagat	tgcttgg	gcgtatgt	caacagaa	aggtattctt	480	
gttagttt	ctgcaggcaa	tagtggtca	ttccaacgc	ctgtagaca	tt tgacgccc	540	
tggattctca	cagttggcgc	tagcactcat	gatagaaaac	taaaggccac	tgttaagctt	600	
ggaaataaa	agaatttga	aggagaatct	gcttatcatc	caaagacttc	aaactcaaca	660	
ttcttcactc	tattt	gtatgtt	tgaaaagata	gtacacgagc	aaccagtagc	cccttctgc	720
ataccaggat	cactcactga	cccttctca				748	

<210> 15
<211> 748
<212> DNA
<213> Artificial Sequence

<220>
<223> Expression homologous to Tomato, T06580 subtilisin-like proteinase p69f

<400> 15	gggcgtgatt atcggagtt	tagacactgg	aattgttctt	gaccatcctt	cat	tttagcga	60
cgttggatg	cctcctccgc	ctgctaaat	gaaaggattt	tgtgagtct	at	ttcacgc	120
caagtgtaac	aacaaactca	ttggagccag	gtcttccc	cttgacaat	gt	cccataga	180
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taatgtattt	ggaatgcca	atgaaacagc	agttgg	tttgc	tttgc	tttgc	300
catatataag	gtatgcgg	ctgatggcgt	ttgttctgat	gtt	gaaat	ttt tagctgc	360
ggatgtat	tttgc	tttgc	tttgc	tttgc	tttgc	tttgc	420
tccgttccat	aatgacaaga	ttgcttgg	ggcgtat	gt	aaacagaa	aa gaggtattct	480
tgtagttgt	tctgcaggca	ataggg	tcc	tttgg	tttgg	tttgg	540
ttggattctc	acagttggcg	ctagcactca	tgatagaaaa	ctaaagg	cca	acttgc	600
tggaaataaa	gaagaattt	aaggagaatc	tgctt	tatcat	ccaaagactt	caaactcaac	660
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cataccagga	tcactcactg	acc	tttct				748

<210> 16
<211> 2538
<212> DNA

SequenceListing.ST25

<213> Artificial Sequence

<220>

<223> Expression homologous to A thaliana, BAB02339 cucumisin-like serine protease

<400> 16

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taatttcagt	ccaattggac	ggtcataaaaa	ctttcatagt	acacgtgtcc	aaatcccata	120
agccccacat	ctttaactacc	cgcacacatt	ggtaactcctc	catcctccga	tcagtctctt	180
cttcttccca	acactctgcc	aaaatccctt	actcttacga	ttatgctgcc	cgtggtttct	240
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tcgtacctga	ccgtgcacgt	cagcttcaca	ccactcacac	accgaccttc	ttaggcctcg	360
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cttccgggtt	gaaaggaaaa	tgcgaaactg	ggctggactt	tcctgcaact	tcatgttaacc	540
gtaaaatcat	cggtgctcga	ttgttttaca	aaggttacga	agctgatcgt	ggaagccaa	600
ttgacgaatc	taaagaatct	aaatcgccaa	gagatactga	aggacatggg	actcacactg	660
cttcaactgc	agctggatct	gtttagctta	acgcttagttt	tttcaatac	gcaaaagggtg	720
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tgatttctct	ttccgttggc	gctgacggtt	atgcaccgga	atatgatgcg	gattctattg	900
ctattggagc	ttttggtgct	tcagaacatg	gcgttgttgt	ctttgctct	gctggaaact	960
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ccgattcaca	tctccttaccg	gcgacaatgg	tcggtaaaaa	agccgggtgac	gaaataaggg	1380
attacgtcaa	atctgattca	tcacaaaag	cgacgattgt	tttcaaagga	actgtaatcg	1440
gaaaatcacc	gtctgctcca	cgtattgctg	cgttctcagg	ccgaggaccc	aattatgtaa	1500
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ccgggtccat	aggaccaaca	gattggaaa	ttgataccag	acgagtggaa	ttcaacatta	1620
tatctgttac	atccatgtct	tgtcctcatg	ttagcgggtt	agctgcttta	cttagaaaag	1680

SequenceListing.ST25

cttaccctaa	atggaccaca	gcagccatca	aatctgcct	catgacaaca	gcttacaacg	1740
ttgataactc	cggcaaaacc	tttacagatc	tcgcgacagg	ccaggaatcg	agtccgttg	1800
ttcacgggtc	gggtcatgtg	gatccgaaca	gagcactaga	tccaggtctt	gtctacgata	1860
ttgacacgaa	ggattacgtg	gatTTTTAT	gCGCCATTGG	ttatgatccc	aaaagaattt	1920
caccgttcgt	gaaagatact	tcttcagtga	attgcagcga	aaagaattt	gttagtccgg	1980
gggatttcaa	ttatccatcg	ttctcagttg	tattggcag	tgatagtgtg	gtaaaaaaca	2040
agcgtgttgt	taaaaatgtt	ggcaggaata	caaATGCGGT	gtatgaggtg	aaaataaaatg	2100
cgccgggttc	ggtggaggtg	aaggtgactc	cgactaagct	tagTTTAC	gagaaaaata	2160
agagTTTGTc	gtatgagatt	agTTTAC	gtaatggaa	tgttgggttg	gagagagtaa	2220
aaggTCTGA	atcagcatt	gggtcaattt	agtggagtga	tggAAATTCAc	agcgtgagga	2280
gtccaattgc	ggtgcattgg	ctactccact	ctgctacaga	atctcagtga	gcaatggact	2340
atgaagcaag	aagataattt	tgctaATCTG	caaACTGTTA	tggGCCAGAA	acaggaacaa	2400
ggctaagttc	agaaaggaaa	aggAAATAGG	gaaggaacat	ctatCTGTTG	aaataatgtt	2460
aagaaatttt	catcattctt	ttctTGTtTA	tgagtatttA	tcagccacaa	aaaaaaaaaa	2520
aaaaaaaaaa	aaaaaaaaaa					2538

<210> 17
<211> 2426
<212> DNA
<213> Artificial Sequence

<220>
<223> Expression homologous to *Alnus glutinosa*, S52769 subtilisin-like proteinase ag12

<400> 17	ggccaattgt	attactatgt	atttcttgct	ccttactatc	ttattactta	ctctaaatcc	60
	attaactatg	gcagagtcag	aaacttatat	catccatatg	gacttacatcg	ccatgcctaa	120
	agctttttct	agccatcaga	attggacttt	gaccacttt	gcttctgtat	caggtagttc	180
	aagtcttgg	actgaaagta	atagaAAATTc	ctttccitca	tcaAAACTAG	tatatgctta	240
	cactaacgct	attcatgggt	ttagtgcAAC	tctttctcct	tctgagctac	aagtataaaa	300
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	cacgtctcaa	ttccttggcc	taaattccga	ttctggtgca	tggccaaagt	cagactatgg	420
	caaagatgtt	atagttggat	tagtgacac	agggatttgg	ccagagagta	aaagctataaa	480
	tgataatggg	atgactgaag	ttccatcaag	atggaaagga	aatgtgaaa	gtggaactca	540
	atTTAATTCC	tctttatgca	acaagaaact	cattggtgcg	cgTTACTTCa	acaaaggcct	600
	aattgccaat	aatccgaata	ttaccatctc	gatgaattca	gctcgtgaca	ctgatggca	660

SequenceListing.ST25

tggaaactcac acatcctcta cagctgcagg aagtcatgta gaatctgcat	720
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tttggaa gaaggtacaa tgttatctga tattctggct gcaattgatc aggcaattga	840
ggatggatg gatataatat ctttatcatt aggcatacat gatcttgctt tatatgagga	900
tccggtagct attgccacat ttgcagcaat ggagaaaat atatggttt ccacttcagc	960
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tgctgctggc acagttgatc gcgaatttat cgggacacta agtctggta atggagttc	1080
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tctcaagaca tgcctagagg agaaggaact ggagaaaaat gcacacaaat tcgcagtcg	1200
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cctgatggct cttggagcct taatattagc ctcatggcct caaaaatcac cgcaactca	1560
aattcgctca ggagagctt tcagtaactt caacatcata tcaggtacgt caatgtcatg	1620
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tgccatccgg tcggccatga tgaccacagc cgacacatgc gataacatgc aaatgccc	1740
ccgagacata ggtcgcaaca ataatgctgc cagccccata gccatggag ctggccgtat	1800
caatccaaat aaggcactag accctggact tatctatgac attacatcac aggactata	1860
caatccctc tgtgctctag attttacatc tcaacagata aaagccatta caaggtcctc	1920
tgcttattcc ttttccaact catcattgga tttaaactat ccatcattca taggctattt	1980
caattataac agcagcgagt cagaccctaa aaggatacaa gaattccaga ggacggtgac	2040
taatgttagga gaaggtatgt ctgtatatac agccaaattt acctcaatgg gtgattataa	2100
agcttagtgtt gcacctgaca agttggttt caaagagaag tatgaaaagc aaagctacaa	2160
gctaaggata gaaggtccat tgctagttga tattatctt tttatggttc tttgagctgg	2220
gtggaaacta gcggtaataa tggttaaaa agtcccattt tcgcaactac cataagagt	2280
gatcctctgt gaggacagaa ctgattatga gtcctgtatt ctgaaaatgt gatacagt	2340
tgaataattt tgaagttaaa ttcaaaaaaa aatctttca gttagttaaa actaacttgc	2400
tgattaaaaa aaaaaaaaaa aaaaaaa	2426

<210> 18
<211> 737

SequenceListing.ST25

<212> PRT

<213> Nicotiana benthamiana

<400> 18

Ala Asn Cys Ile Thr Met Tyr Phe Leu Leu Leu Thr Ile Leu Leu Leu
1 5 10 15

Thr Leu Asn Pro Leu Thr Met Ala Glu Ser Glu Thr Tyr Ile Ile His
20 25 30

Met Asp Leu Ser Ala Met Pro Lys Ala Phe Ser Ser His Gln Asn Trp
35 40 45

Tyr Leu Thr Thr Leu Ala Ser Val Ser Gly Ser Ser Ser Leu Gly Thr
50 55 60

Glu Ser Asn Arg Asn Ser Phe Ser Ser Ser Lys Leu Val Tyr Ala Tyr
65 70 75 80

Thr Asn Ala Ile His Gly Phe Ser Ala Thr Leu Ser Pro Ser Glu Leu
85 90 95

Gln Val Ile Lys Asn Ser Pro Gly Tyr Leu Ser Ser Thr Lys Asp Met
100 105 110

Thr Val Lys Ile Asp Thr Thr His Thr Ser Gln Phe Leu Gly Leu Asn
115 120 125

Ser Asp Ser Gly Ala Trp Pro Lys Ser Asp Tyr Gly Lys Asp Val Ile
130 135 140

Val Gly Leu Val Asp Thr Gly Ile Trp Pro Glu Ser Lys Ser Tyr Asn
145 150 155 160

Asp Asn Gly Met Thr Glu Val Pro Ser Arg Trp Lys Gly Glu Cys Glu
165 170 175

Ser Gly Thr Gln Phe Asn Ser Ser Leu Cys Asn Lys Lys Leu Ile Gly
180 185 190

Ala Arg Tyr Phe Asn Lys Gly Leu Ile Ala Asn Asn Pro Asn Ile Thr
195 200 205

Ile Ser Met Asn Ser Ala Arg Asp Thr Asp Gly His Gly Thr His Thr
210 215 220

Ser Ser Thr Ala Ala Gly Ser His Val Glu Ser Ala Ser Tyr Phe Gly
225 230 235 240

SequenceListing.ST25

Tyr Ala Arg Gly Ser Ala Thr Gly Met Ala Pro Lys Ala His Val Ala
245 250 255

Met Tyr Lys Ala Leu Trp Glu Glu Gly Thr Met Leu Ser Asp Ile Leu
260 265 270

Ala Ala Ile Asp Gln Ala Ile Glu Asp Gly Val Asp Ile Ile Ser Leu
275 280 285

Ser Leu Gly Ile Asp Asp Leu Ala Leu Tyr Glu Asp Pro Val Ala Ile
290 295 300

Ala Thr Phe Ala Ala Met Glu Lys Asp Ile Phe Val Ser Thr Ser Ala
305 310 315 320

Gly Asn Glu Gly Pro Asp Asp Gln Ala Leu His Asn Gly Thr Pro Trp
325 330 335

Val Leu Thr Val Ala Ala Gly Thr Val Asp Arg Glu Phe Ile Gly Thr
340 345 350

Leu Ser Leu Gly Asn Gly Val Ser Val Thr Gly Leu Ser Leu Tyr Pro
355 360 365

Gly Asn Ser Ser Ser Ser Glu Ser Ser Ile Val Phe Leu Lys Thr Cys
370 375 380

Leu Glu Glu Lys Glu Leu Glu Lys Asn Ala His Lys Phe Ala Val Cys
385 390 395 400

Tyr Asp Thr Asn Gly Ser Val Ser Asp Gln Leu Tyr Asn Val Lys Asn
405 410 415

Thr Lys Val Ala Gly Gly Ile Phe Ile Thr Asn Tyr Thr Asp Leu Glu
420 425 430

Phe Tyr Leu Gln Ser Glu Phe Pro Ala Val Phe Leu Asn Phe Glu Asp
435 440 445

Gly Asp Lys Val Leu Glu Tyr Ile Lys Asn Ser His Ser Pro Lys Ala
450 455 460

Arg Leu Glu Phe Gln Val Thr His Leu Gly Ala Lys Pro Ala Pro Lys
465 470 475 480

Val Ala Ser Tyr Ser Ser Arg Gly Pro Ser Glu Ser Cys Pro Phe Ile
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SequenceListing.ST25

485

490

495

Leu Lys Pro Asp Leu Met Ala Pro Gly Ala Leu Ile Leu Ala Ser Trp
 500 505 510

Pro Gln Lys Ser Pro Ala Thr Gln Ile Arg Ser Gly Glu Leu Phe Ser
 515 520 525

Asn Phe Asn Ile Ile Ser Gly Thr Ser Met Ser Cys Pro His Ala Ala
 530 535 540

Gly Val Ala Ala Leu Leu Lys Gly Ala His Pro Lys Trp Ser Pro Ala
 545 550 555 560

Ala Ile Arg Ser Ala Met Met Thr Thr Ala Asp Thr Met Asp Asn Met
 565 570 575

Gln Met Pro Ile Arg Asp Ile Gly Arg Asn Asn Asn Ala Ala Ser Pro
 580 585 590

Leu Ala Met Gly Ala Gly Arg Ile Asn Pro Asn Lys Ala Leu Asp Pro
 595 600 605

Gly Leu Ile Tyr Asp Ile Thr Ser Gln Asp Tyr Ile Asn Leu Leu Cys
 610 615 620

Ala Leu Asp Phe Thr Ser Gln Gln Ile Lys Ala Ile Thr Arg Ser Ser
 625 630 635 640

Ala Tyr Ser Cys Ser Asn Ser Ser Leu Asp Leu Asn Tyr Pro Ser Phe
 645 650 655

Ile Gly Tyr Phe Asn Tyr Asn Ser Ser Glu Ser Asp Pro Lys Arg Ile
 660 665 670

Gln Glu Phe Gln Arg Thr Val Thr Asn Val Gly Glu Gly Met Ser Val
 675 680 685

Tyr Thr Ala Lys Leu Thr Ser Met Gly Asp Tyr Lys Ala Ser Val Ala
 690 695 700

Pro Asp Lys Leu Val Phe Lys Glu Lys Tyr Glu Lys Gln Ser Tyr Lys
 705 710 715 720

Leu Arg Ile Glu Gly Pro Leu Leu Val Asp Ile Ile Leu Phe Met Val
 725 730 735

SequenceListing.ST25

Leu

<210> 19

<211> 289

<212> PRT

<213> Nicotiana benthamiana

<400> 19

Val Ser Thr Gln Ser Ala Ile Thr Ala Gly Asp Asp Gly Ile Ser Glu
1 5 10 15

Val Pro Ser Arg Trp Lys Gly Glu Cys Glu Ser Gly Thr Glu Phe Asn
20 25 30

Ser Ser Leu Cys Asn Lys Lys Leu Ile Gly Ala Arg Tyr Phe Asn Lys
35 40 45

Gly Leu Leu Ala Asn Asn Pro Asn Leu Asn Ile Ser Met Asn Ser Ser
50 55 60

Arg Asp Thr Asp Gly His Gly Thr His Thr Ser Ser Thr Ala Ala Gly
65 70 75 80

Ser Tyr Val Glu Gly Ala Ser Tyr Phe Gly Tyr Ala Thr Gly Thr Ala
85 90 95

Ile Gly Ile Ala Pro Lys Ala His Val Ala Met Tyr Lys Ala Leu Trp
100 105 110

Glu Glu Gly Val Tyr Leu Ser Asp Val Leu Ala Ala Ile Asp Gln Ala
115 120 125

Ile Thr Asp Gly Val Asp Val Leu Ser Leu Ser Leu Gly Ile Asp Ala
130 135 140

Ile Pro Leu His Glu Asp Pro Val Ala Ile Ala Ala Phe Ala Ala Leu
145 150 155 160

Glu Lys Gly Ile Phe Val Ser Thr Ser Ala Gly Asn Glu Gly Pro Tyr
165 170 175

Tyr Glu Thr Leu His Asn Gly Thr Pro Trp Val Leu Thr Val Ala Ala
180 185 190

Gly Thr Val Asp Arg Glu Phe Ile Gly Thr Leu Thr Leu Gly Asn Gly
195 200 205

SequenceListing.ST25

Val Ser Val Pro Gly Leu Ser Leu Tyr Pro Gly Asn Ser Ser Ser Ser
210 215 220

Glu Ser Ser Leu Val Tyr Val Glu Cys Gln Asp Asp Lys Glu Leu Gln
225 230 235 240

Lys Asn Ala His Lys Phe Val Val Cys Leu Asp Lys Asn Asp Ser Val
245 250 255

Gly Glu His Val Tyr Asn Val Arg Asn Ser Lys Val Ala Gly Ala Val
260 265 270

Phe Ile Thr Asn Thr Thr Asp Leu Glu Phe Tyr Leu Gln Ser Glu Phe
275 280 285

Pro

<210> 20
<211> 683
<212> PRT
<213> Nicotiana benthamiana

<220>
<221> misc_feature
<222> (7)..(7)
<223> Xaa can be any naturally occurring amino acid

<400> 20

Thr Pro Arg Pro Thr Arg Xaa Pro Thr Arg Pro Pro Thr Arg Pro Leu
1 5 10 15

Ser Pro Ser Glu Tyr Lys Ala Ile Lys Asn Ser Leu Gly Tyr Val Ser
20 25 30

Ser Met Glu Asp Arg Thr Val Lys Ile His Thr Thr His Ser Ser His
35 40 45

Phe Leu Gly Leu Ser Ser Met Tyr Gly Ser Trp Pro Lys Ser Asn Tyr
50 55 60

Gly Lys Gly Val Ile Ile Gly Val Val Asp Thr Gly Val Trp Pro Glu
65 70 75 80

Ile Lys Ser Phe Asp Asp Asp Gly Met Ser Gln Val Pro Ser Arg Trp
85 90 95

Lys Gly Ile Cys Gln Thr Gly Thr Gln Phe Asn Ser Ser Leu Cys Asn
100 105 110

SequenceListing.ST25

Lys Lys Leu Ile Gly Ala Arg Tyr Phe Asn Lys Gly Leu Leu Ser Lys
115 120 125

Val Lys Asn Leu Thr Ile Met Ile Asn Ser Ala Arg Asp Thr Glu Gly
130 135 140

His Gly Thr His Thr Ser Ser Thr Ala Ala Gly Ser Leu Val Lys Gly
145 150 155 160

Ala Ser Tyr Phe Gly Tyr Ala Pro Gly Phe Ala Ile Gly Val Ala Pro
165 170 175

Met Ala His Val Ala Val Tyr Lys Ala Leu Trp Asp Gly Ala Gly Thr
180 185 190

Ile Ser Asp Ile Leu Ala Ala Leu Asp Gln Ala Ile Ala Asp Gly Cys
195 200 205

Asp Ile Leu Ser Leu Ser Phe Gly Ala Val Ser Pro Phe Pro Leu Tyr
210 215 220

Ile Asp Pro Ile Ser Ile Ala Ser Phe Ser Ala Met Glu Lys Gly Ile
225 230 235 240

Phe Val Ser Val Ser Ala Gly Asn Glu Gly Pro Phe Asp Gln Ser Leu
245 250 255

Ser Asn Glu Ala Pro Trp Phe Leu Ser Val Ala Ala Ser Thr Val Asp
260 265 270

Arg Asp Val Ile Arg Ile Leu Thr Leu Gly Asn Gly Val Ser Val Thr
275 280 285

Gly Leu Ser Leu Tyr Pro Gly Asn Ser Thr Ser Asp Ile Ser Val Ile
290 295 300

Leu Val Lys Asn Cys Leu Asp Lys Gln Glu Leu Gln Asn Val Thr Asp
305 310 315 320

Lys Phe Val Val Cys Ile Asp Lys Asn Ala Leu Val Gly Lys Gln Val
325 330 335

Glu Ser Val Arg His Ser Asn Ala Ala Gly Ala Val Phe Ile Thr Asn
340 345 350

Asp Phe Val Thr Asp Leu Gly Glu Tyr Leu Lys Thr Glu Phe Pro Ser
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SequenceListing.ST25
355 360 365

Val Phe Leu Asn Phe Gln Asn Gly Asp Gln Val Leu Lys Tyr Val Asn
370 375 380

Ser Thr Ser Ser Pro Lys Ala Lys Ile Gly Leu Gln Gly Thr Leu Ile
385 390 395 400

Gly Val Glu Arg Ala Pro Ala Val Ala His Phe Ser Ser Arg Gly Pro
405 410 415

Ser Met Thr Cys Pro Phe Ile Leu Lys Pro Asp Leu Met Ala Pro Gly
420 425 430

His Leu Ile Leu Ala Ser Trp Ser Pro Leu Ser Ser Val Ser Pro Tyr
435 440 445

Thr Glu Leu His Asn Ile Phe Asn Ile Ile Ser Gly Thr Ser Met Ser
450 455 460

Cys Pro His Ala Ala Gly Val Ala Ala Leu Val Lys Gly Thr His Pro
465 470 475 480

Glu Trp Ser Pro Ala Ala Ile Arg Ser Ala Met Met Thr Thr Ala Asp
485 490 495

Val Leu Asp Asn Thr Gln Ser Pro Ile Gln Asp Ile Gly Arg Pro Glu
500 505 510

Asn Ala Ala Ala Thr Pro Leu Ala Met Gly Ala Gly His Ile Asn Pro
515 520 525

Asn Lys Ala Ile Asp Pro Gly Leu Ile Tyr Asp Thr Thr Pro Gln Asp
530 535 540

Tyr Ile Asn Leu Leu Cys Ala Leu Asn Leu Thr Ser Glu Gln Ile Lys
545 550 555 560

Thr Ile Thr Arg Ser Ser Tyr Thr Cys Pro Asn Pro Ser Leu Asp Leu
565 570 575

Asn Tyr Pro Ser Phe Ile Ala Tyr Phe Asn Val Asn Ser Ser Glu Leu
580 585 590

Asp Pro Thr Arg Val Gln Glu Phe Lys Arg Thr Val Thr Asn Val Gly
595 600 605

SequenceListing.ST25

Glu Gly Val Ser Glu Tyr Thr Ala Glu Leu Thr Ala Met Pro Gly Leu
610 615 620

Lys Val Ser Val Val Pro Glu Lys Leu Val Phe Lys Asp Lys Tyr Glu
625 630 635 640

Lys Gln Ser Tyr Lys Leu Arg Ile Glu Cys Pro Gln Leu Met Asn Asp
645 650 655

Phe Leu Val His Gly Ser Leu Ser Trp Val Glu Lys Gly Gly Lys Tyr
660 665 670

Val Val Arg Ser Pro Ile Val Ala Thr Asn Ser
675 680

<210> 21
<211> 770
<212> PRT
<213> Nicotiana benthamiana

<220>
<221> misc_feature
<222> (211)..(211)
<223> Xaa can be any naturally occurring amino acid

<400> 21

Val Phe Pro Phe Phe Phe Ile Ile Ile Ser Phe Cys Leu Thr Pro Val
1 5 10 15

Thr Ile Ser Val Gln Ser Asp Gly His Glu Thr Phe Ile Ile His Val
20 25 30

Ser Lys Ser Asp Lys Pro Arg Val Phe Thr Thr His His His Trp Tyr
35 40 45

Ser Ser Ile Ile Arg Ser Val Ser Gln His Pro Ser Lys Ile Leu Tyr
50 55 60

Thr Tyr Glu Arg Ala Ala Val Gly Phe Ser Ala Arg Leu Thr Ala Ala
65 70 75 80

Gln Ala Asp Gln Leu Arg Arg Ile Pro Gly Val Ile Ser Val Leu Pro
85 90 95

Asp Glu Val Arg His Leu His Thr Thr His Thr Pro Thr Phe Leu Gly
100 105 110

Leu Ala Asp Ser Phe Gly Leu Trp Pro Asn Ser Asp Tyr Ala Asp Asp
115 120 125

SequenceListing.ST25

Val Ile Val Gly Val Leu Asp Thr Gly Ile Trp Pro Glu Arg Pro Ser
130 135 140

Phe Ser Asp Glu Gly Leu Ser Thr Val Pro Ser Ser Trp Lys Gly Lys
145 150 155 160

Cys Val Thr Gly Pro Asp Phe Pro Glu Thr Ser Cys Asn Lys Lys Ile
165 170 175

Ile Gly Ala Gln Met Phe Tyr Lys Gly Tyr Glu Ala Lys His Gly Pro
180 185 190

Met Asp Glu Ser Lys Glu Ser Lys Ser Pro Arg Asp Thr Glu Gly His
195 200 205

Gly Thr Xaa Thr Ala Ser Thr Ala Ala Gly Ser Leu Val Ala Asn Ala
210 215 220

Ser Phe Tyr Gln Tyr Ala Lys Gly Glu Ala Arg Gly Met Ala Ile Lys
225 230 235 240

Ala Arg Ile Ala Ala Tyr Lys Ile Cys Trp Lys Asn Gly Cys Phe Asn
245 250 255

Ser Asp Ile Leu Ala Ala Met Asp Gln Ala Val Asp Asp Gly Val His
260 265 270

Val Ile Ser Leu Ser Val Gly Ala Asn Gly Tyr Ala Pro His Tyr Leu
275 280 285

Tyr Asp Ser Ile Ala Ile Gly Ala Phe Gly Ala Ser Glu His Gly Val
290 295 300

Leu Val Ser Cys Ser Ala Gly Asn Ser Gly Pro Gly Ala Tyr Thr Ala
305 310 315 320

Val Asn Ile Ala Pro Trp Met Leu Thr Val Gly Ala Ser Thr Ile Asp
325 330 335

Arg Glu Phe Pro Ala Asp Val Ile Leu Gly Asp Asn Arg Ile Phe Gly
340 345 350

Gly Val Ser Leu Tyr Ser Gly Asn Pro Leu Thr Asp Ala Lys Leu Pro
355 360 365

Val Val Tyr Ser Gly Asp Cys Gly Ser Lys Tyr Cys Tyr Pro Gly Lys
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SequenceListing.ST25

370

375

380

Leu Asp Pro Lys Lys Val Ala Gly Lys Ile Val Leu Cys Asp Arg Gly
 385 390 395 400

Gly Asn Ala Arg Val Glu Lys Gly Ser Ala Val Lys Gln Ala Gly Gly
 405 410 415

Val Gly Met Ile Leu Ala Asn Leu Ala Asp Ser Gly Glu Glu Leu Val
 420 425 430

Ala Asp Ser His Leu Leu Pro Ala Thr Met Val Gly Gln Lys Ala Gly
 435 440 445

Asp Lys Ile Arg His Tyr Val Thr Ser Asp Pro Ser Pro Thr Ala Thr
 450 455 460

Ile Val Phe Arg Gly Thr Val Ile Gly Lys Ser Pro Ala Ala Pro Arg
 465 470 475 480

Val Ala Ala Phe Ser Ser Arg Gly Pro Asn His Leu Thr Pro Glu Ile
 485 490 495

Leu Lys Pro Asp Val Ile Ala Pro Gly Val Asn Ile Leu Ala Gly Trp
 500 505 510

Thr Gly Ser Val Gly Pro Thr Asp Leu Asp Ile Asp Thr Arg Arg Val
 515 520 525

Glu Phe Asn Ile Ile Ser Gly Thr Ser Met Ser Cys Pro His Val Gly
 530 535 540

Gly Leu Ala Ala Leu Leu Arg Arg Ala His Pro Lys Trp Thr Pro Ala
 545 550 555 560

Ala Val Lys Ser Ala Leu Met Thr Thr Ala Tyr Asn Leu Asp Asn Ser
 565 570 575

Gly Lys Val Phe Thr Asp Leu Ala Thr Gly Gln Glu Ser Thr Pro Phe
 580 585 590

Val His Gly Ser Gly His Val Asp Pro Asn Arg Ala Leu Asp Pro Gly
 595 600 605

Leu Ile Tyr Asp Ile Glu Thr Ser Asp Tyr Val Asn Phe Leu Cys Ser
 610 615 620

SequenceListing.ST25

Ile Gly Tyr Asp Gly Asp Asp Val Ala Val Phe Ala Arg Asp Ser Ser
625 630 635 640

Arg Val Asn Cys Ser Glu Arg Ser Leu Ala Thr Pro Gly Asp Leu Asn
645 650 655

Tyr Pro Ser Phe Ser Val Val Phe Thr Gly Glu Ser Asn Gly Val Val
660 665 670

Lys Tyr Lys Arg Val Val Asn Asn Val Gly Lys Asn Thr Asp Ala Val
675 680 685

Tyr Glu Val Lys Val Asn Ala Pro Ser Ser Val Glu Val Asn Val Ser
690 695 700

Pro Ala Lys Leu Val Phe Ser Glu Glu Lys Gln Ser Leu Ser Tyr Glu
705 710 715 720

Ile Ser Leu Lys Ser Lys Lys Ser Gly Asp Leu Gln Met Val Lys Gly
725 730 735

Ile Glu Ser Ala Phe Gly Ser Ile Glu Trp Ser Asp Gly Ile His Asn
740 745 750

Val Arg Ser Pro Ile Ala Val Arg Trp Arg His Tyr Ser Asp Ala Ala
755 760 765

Ser Met
770

<210> 22
<211> 770
<212> PRT
<213> Nicotiana benthamiana

<400> 22

Pro Thr Arg Pro Val Phe Pro Phe Phe Ile Ile Ile Ser Phe Cys
1 5 10 15

Leu Thr Pro Val Thr Ile Ser Val Gln Ser Asp Gly His Glu Thr Phe
20 25 30

Ile Ile His Val Ser Lys Ser Asp Lys Pro Arg Val Phe Thr Thr His
35 40 45

His His Trp Tyr Ser Ser Ile Ile Arg Ser Val Ser Gln His Pro Ser
50 55 60

SequenceListing.ST25

Lys Ile Leu Tyr Thr Tyr Glu Arg Ala Ala Val Gly Phe Ser Ala Arg
65 70 75 80

Leu Thr Ala Ala Gln Ala Asp Gln Leu Arg Arg Ile Pro Gly Val Ile
85 90 95

Ser Val Leu Pro Asp Glu Val Arg His Leu His Thr Thr His Thr Pro
100 105 110

Thr Phe Leu Gly Leu Ala Asp Ser Phe Gly Leu Trp Pro Asn Ser Asp
115 120 125

Tyr Ala Asp Asp Val Ile Val Gly Val Leu Asp Thr Gly Ile Trp Pro
130 135 140

Glu Arg Pro Ser Phe Ser Asp Glu Gly Leu Ser Thr Val Pro Ser Ser
145 150 155 160

Trp Lys Gly Lys Cys Val Thr Gly Pro Asp Phe Pro Glu Thr Ser Cys
165 170 175

Asn Lys Lys Ile Ile Gly Ala Gln Met Phe Tyr Lys Gly Tyr Glu Ala
180 185 190

Lys His Gly Pro Met Asp Glu Ser Lys Glu Ser Lys Ser Pro Arg Asp
195 200 205

Thr Glu Gly His Gly Thr His Thr Ala Ser Thr Ala Ala Gly Ser Leu
210 215 220

Val Ala Asn Ala Ser Phe Tyr Gln Tyr Ala Lys Gly Met Ala Ile Lys
225 230 235 240

Ala Arg Ile Ala Ala Tyr Lys Ile Cys Trp Lys Asn Gly Cys Phe Asn
245 250 255

Ser Asp Ile Leu Ala Ala Met Asp Gln Ala Val Asp Asp Gly Val His
260 265 270

Val Ile Ser Leu Ser Val Gly Ala Asn Gly Tyr Ala Pro His Tyr Leu
275 280 285

Tyr Asp Ser Ile Ala Ile Gly Ala Phe Gly Ala Ser Glu His Gly Val
290 295 300

Leu Val Ser Cys Ser Ala Gly Asn Ser Gly Pro Gly Ala Tyr Thr Ala
305 310 315 320

SequenceListing.ST25

Val Asn Ile Ala Pro Trp Met Leu Thr Val Gly Ala Ser Thr Ile Asp
325 330 335

Arg Glu Phe Pro Ala Asp Val Ile Leu Gly Asp Asn Arg Ile Phe Gly
340 345 350

Gly Val Ser Leu Tyr Ser Gly Asn Pro Leu Thr Asp Ala Lys Leu Pro
355 360 365

Val Val Tyr Ser Gly Asp Cys Gly Ser Lys Tyr Cys Tyr Pro Gly Lys
370 375 380

Leu Asp Pro Lys Lys Val Ala Gly Lys Ile Val Leu Cys Asp Arg Gly
385 390 395 400

Gly Asn Ala Arg Val Glu Lys Gly Ser Ala Val Lys Gln Ala Gly Gly
405 410 415

Val Gly Met Ile Leu Ala Asn Leu Ala Asp Ser Gly Glu Glu Leu Val
420 425 430

Ala Asp Ser His Leu Leu Pro Ala Thr Met Val Gly Gln Lys Ala Gly
435 440 445

Asp Lys Ile Arg His Tyr Val Thr Ser Asp Pro Ser Pro Thr Ala Thr
450 455 460

Ile Val Phe Arg Gly Thr Val Ile Gly Lys Ser Pro Ala Ala Pro Arg
465 470 475 480

Val Ala Ala Phe Ser Ser Arg Gly Pro Asn His Leu Thr Pro Glu Ile
485 490 495

Leu Lys Pro Asp Val Ile Ala Pro Gly Val Asn Ile Leu Ala Gly Trp
500 505 510

Thr Gly Ser Val Gly Pro Thr Asp Leu Asp Ile Asp Thr Arg Arg Val
515 520 525

Glu Phe Asn Ile Ile Ser Gly Thr Ser Met Ser Cys Pro His Val Gly
530 535 540

Gly Leu Ala Ala Leu Leu Arg Arg Ala His Pro Lys Trp Thr Pro Ala
545 550 555 560

Ala Val Lys Ser Ala Leu Met Thr Thr Ala Tyr Asn Leu Asp Asn Ser
565 570 575

SequenceListing.ST25

Gly Lys Val Phe Thr Asp Leu Ala Thr Gly Gln Glu Ser Thr Pro Phe
580 585 590

Val His Gly Ser Gly His Val Asp Pro Asn Arg Ala Leu Asp Pro Gly
595 600 605

Leu Ile Tyr Asp Ile Glu Thr Ser Asp Tyr Val Asn Phe Leu Cys Ser
610 615 620

Met Ala Tyr Asp Gly Asp Asp Val Ala Val Phe Ala Arg Asp Ser Ser
625 630 635 640

Arg Val Asn Cys Ser Glu Arg Ser Leu Ala Thr Pro Gly Asp Leu Asn
645 650 655

Tyr Pro Ser Phe Ser Val Val Phe Thr Gly Glu Ser Asn Gly Val Val
660 665 670

Lys Tyr Lys Arg Val Val Asn Asn Val Gly Lys Asn Thr Asp Ala Val
675 680 685

Tyr Glu Val Lys Val Asn Ala Pro Ser Ser Val Glu Val Asn Val Ser
690 695 700

Pro Ala Lys Leu Val Phe Ser Glu Glu Lys Gln Ser Leu Ser Tyr Glu
705 710 715 720

Ile Ser Leu Lys Ser Lys Lys Ser Gly Asp Leu Gln Met Val Lys Gly
725 730 735

Ile Glu Ser Ala Phe Gly Ser Ile Glu Trp Ser Asp Gly Ile His Asn
740 745 750

Val Arg Ser Pro Ile Ala Val Arg Trp Arg His Tyr Ser Asp Ala Ala
755 760 765

Ser Met
770

<210> 23
<211> 775
<212> PRT
<213> Nicotiana benthamiana

<400> 23

Leu Ser Ser Ser Ser Ser Phe Ser Leu Leu Ile Phe Phe Phe Leu
1 5 10 15

SequenceListing.ST25

Asn Ser Leu Val Ile Ser Val Gln Leu Asp Gly His Lys Thr Phe Ile
20 25 30

Val His Val Ser Lys Ser His Lys Pro His Ile Phe Thr Thr Arg Gln
35 40 45

His Trp Tyr Ser Ser Ile Leu Arg Ser Val Ser Ser Ser Gln His
50 55 60

Ser Ala Lys Ile Leu Tyr Ser Tyr Asp Tyr Ala Ala Arg Gly Phe Ser
65 70 75 80

Ala Arg Leu Thr Ser Gly Gln Ala Asp Arg Leu Arg Arg Met Pro Gly
85 90 95

Val Val Ser Val Val Pro Asp Arg Ala Arg Gln Leu His Thr Thr His
100 105 110

Thr Pro Thr Phe Leu Gly Leu Ala Asp Ser Phe Gly Leu Trp Pro Asn
115 120 125

Ser Asp Tyr Ala Asp Asp Val Ile Val Gly Val Leu Asp Thr Gly Ile
130 135 140

Trp Pro Glu Arg Pro Ser Phe Ser Asp Gly Gly Leu Ser Ala Val Pro
145 150 155 160

Ser Gly Trp Lys Gly Lys Cys Glu Thr Gly Leu Asp Phe Pro Ala Thr
165 170 175

Ser Cys Asn Arg Lys Ile Ile Gly Ala Arg Leu Phe Tyr Lys Gly Tyr
180 185 190

Glu Ala Asp Arg Gly Ser Pro Ile Asp Glu Ser Lys Glu Ser Lys Ser
195 200 205

Pro Arg Asp Thr Glu Gly His Gly Thr His Thr Ala Ser Thr Ala Ala
210 215 220

Gly Ser Val Val Ala Asn Ala Ser Phe Phe Gln Tyr Ala Lys Gly Glu
225 230 235 240

Ala Arg Gly Met Ala Val Lys Ala Arg Ile Ala Ala Tyr Lys Ile Cys
245 250 255

Trp Lys Thr Gly Cys Phe Asp Ser Asp Ile Leu Ala Ala Met Asp Gln

SequenceListing.ST25
260 265 270

Ala Val Ala Asp Gly Val His Val Ile Ser Leu Ser Val Gly Ala Asp
275 280 285

Gly Tyr Ala Pro Glu Tyr Asp Ala Asp Ser Ile Ala Ile Gly Ala Phe
290 295 300

Gly Ala Ser Glu His Gly Val Val Val Ser Cys Ser Ala Gly Asn Ser
305 310 315 320

Gly Pro Gly Ala Ser Thr Ala Val Asn Val Ala Pro Trp Ile Leu Thr
325 330 335

Val Ala Ala Ser Thr Ile Asp Arg Glu Phe Pro Ala Asp Val Ile Leu
340 345 350

Gly Asp Gly Arg Ile Phe Gly Gly Val Ser Leu Tyr Ser Gly Asp Pro
355 360 365

Leu Gly Asp Ser Lys Leu Pro Leu Val Tyr Ser Gly Asp Cys Gly Ser
370 375 380

Gln Leu Cys Tyr Pro Gly Met Leu Asp Pro Ser Lys Val Ala Gly Lys
385 390 395 400

Ile Val Leu Cys Asp Arg Gly Gly Asn Ala Arg Val Glu Lys Gly Ser
405 410 415

Ala Val Lys Leu Ala Gly Gly Ala Gly Met Val Leu Ala Asn Leu Ala
420 425 430

Asp Ser Gly Glu Glu Leu Val Ala Asp Ser His Leu Leu Pro Ala Thr
435 440 445

Met Val Gly Gln Lys Ala Gly Asp Glu Ile Arg Asp Tyr Val Lys Ser
450 455 460

Asp Ser Ser Pro Lys Ala Thr Ile Val Phe Lys Gly Thr Val Ile Gly
465 470 475 480

Lys Ser Pro Ser Ala Pro Arg Ile Ala Ala Phe Ser Gly Arg Gly Pro
485 490 495

Asn Tyr Val Thr Pro Glu Ile Leu Lys Pro Asp Val Thr Ala Pro Gly
500 505 510

SequenceListing ST25

Val Asn Ile Leu Ala Gly Trp Thr Gly Ser Ile Gly Pro Thr Asp Leu
 515 520 525

Glu Ile Asp Thr Arg Arg Val Glu Phe Asn Ile Ile Ser Gly Thr Ser
 530 535 540

Met Ser Cys Pro His Val Ser Gly Leu Ala Ala Leu Leu Arg Lys Ala
 545 550 555 560

Tyr Pro Lys Trp Thr Thr Ala Ala Ile Lys Ser Ala Leu Met Thr Thr
 565 570 575

Ala Tyr Asn Val Asp Asn Ser Gly Lys Thr Phe Thr Asp Leu Ala Thr
 580 585 590

Gly Gln Glu Ser Ser Pro Phe Val His Gly Ser Gly His Val Asp Pro
 595 600 605

Asn Arg Ala Leu Asp Pro Gly Leu Val Tyr Asp Ile Asp Thr Lys Asp
 610 615 620

Tyr Val Asp Phe Leu Cys Ala Ile Gly Tyr Asp Pro Lys Arg Ile Ser
 625 630 635 640

Pro Phe Val Lys Asp Thr Ser Ser Val Asn Cys Ser Glu Lys Asn Leu
 645 650 655

Val Ser Pro Gly Asp Leu Asn Tyr Pro Ser Phe Ser Val Val Phe Gly
 660 665 670

Ser Asp Ser Val Val Lys Asn Lys Arg Val Val Lys Asn Val Gly Arg
 675 680 685

Asn Thr Asn Ala Val Tyr Glu Val Lys Ile Asn Ala Pro Gly Ser Val
 690 695 700

Glu Val Lys Val Thr Pro Thr Lys Leu Ser Phe Ser Glu Lys Asn Lys
 705 710 715 720

Ser Leu Ser Tyr Glu Ile Ser Phe Ser Ser Asn Gly Ser Val Gly Leu
 725 730 735

Glu Arg Val Lys Gly Leu Glu Ser Ala Phe Gly Ser Ile Glu Trp Ser
 740 745 750

Asp Gly Ile His Ser Val Arg Ser Pro Ile Ala Val His Trp Leu Leu
 755 760 765

SequenceListing.ST25

His Ser Ala Thr Glu Ser Gln
770 775

<210> 24
<211> 398
<212> PRT
<213> Nicotiana benthamiana

<400> 24

Gly Val Ile Ile Gly Val Ile Asp Thr Gly Ile Phe Pro Asp His Pro
1 5 10 15

Ser Phe Ser Asp Val Gly Met Ser Pro Pro Pro Ala Lys Trp Lys Gly
20 25 30

Phe Cys Glu Ser Asn Phe Thr Thr Lys Cys Asn Asn Lys Ile Ile Gly
35 40 45

Leu Arg Ser Phe Arg Leu Ser Glu Asp Thr Pro Ile Asp Thr Asp Gly
50 55 60

His Gly Thr His Thr Ala Ser Thr Ala Ala Gly Ala Phe Val Lys Gly
65 70 75 80

Ala Asn Phe Phe Gly Asn Ala Asn Gly Thr Ala Val Gly Val Ala Pro
85 90 95

Leu Ala His Met Ala Ile Tyr Lys Val Cys Ser Phe Ala Thr Cys Ser
100 105 110

Glu Thr Asp Ala Leu Ala Ala Met Asp Ala Ala Ile Asp Asp Gly Val
115 120 125

Asp Ile Ile Ser Ala Ser Leu Gly Gly Phe Thr Asn Ala Pro Leu His
130 135 140

Asp Asp Pro Ile Ser Leu Gly Ala Tyr Ser Ala Thr Glu Lys Gly Ile
145 150 155 160

Leu Ala Ser Ala Ser Ala Gly Asn Ser Glu Phe Asp Asn Pro Val Ala
165 170 175

Asn Asn Ala Pro Trp Ile Leu Thr Val Gly Ala Ser Thr His Asp Arg
180 185 190

Lys Leu Lys Ala Thr Val Lys Leu Gly Asn Lys Glu Glu Phe Glu Gly
195 200 205

SequenceListing.ST25

Glu Ser Ala Asp Gln Pro Lys Thr Ser Asn Ser Thr Phe Ile Ala Leu
210 215 220

Phe Asp Ala Gly Lys Asn Ala Ser Asp Gln Asp Ala Pro Phe Cys Arg
225 230 235 240

Ser Trp Ala Met Thr Asp Pro Ala Ile Lys Gly Lys Ile Val Leu Cys
245 250 255

Gln Lys Asp Pro Ser Ser Leu Thr Ser Ser Gln Gly Arg Asn Val Lys
260 265 270

Asp Ala Gly Gly Val Gly Met Ile Leu Ile Asn Asn Pro Glu Asp Gly
275 280 285

Val Thr Lys Ser Ala Thr Ala His Val Leu Pro Ala Leu Asp Val Ser
290 295 300

His Glu Glu Gly Glu Lys Ile Lys Ala Tyr Ile Asn Ser Thr Ser Asn
305 310 315 320

Pro Ile Ala Ala Ile Thr Phe Gln Gly Thr Val Ile Gly Asp Lys Asn
325 330 335

Ala Pro Ile Val Ala Ser Phe Ser Ala Arg Gly Pro Ser Arg Ala Asn
340 345 350

Pro Gly Ile Leu Lys Pro Asp Ile Ile Gly Pro Gly Val Asn Ile Leu
355 360 365

Ala Ala Trp Pro Thr Thr Val Asn Ile Pro Asn Lys Asn Thr Asn Ser
370 375 380

Gly Phe Asn Ile Ile Ser Gly Thr Ser Met Ser Cys Pro His
385 390 395

<210> 25
<211> 398
<212> PRT
<213> Nicotiana benthamiana

<400> 25

Gly Val Ile Ile Gly Val Ile Asp Thr Gly Ile Val Pro Asp His Pro
1 5 10 15

Ser Phe Ser Asp Val Gly Met Pro Pro Pro Pro Ala Lys Trp Lys Gly
20 25 30

SequenceListing.ST25

Phe Cys Glu Ser Asn Phe Thr Thr Lys Arg Asn Asn Lys Leu Ile Gly
35 40 45

Ala Arg Ser Phe Pro Leu Asp Asn Gly Pro Ile Asp Glu Asn Gly His
50 55 60

Gly Thr His Thr Ala Ser Thr Ala Ala Gly Ala Phe Val Lys Gly Ala
65 70 75 80

Asn Val Phe Gly Asn Ala Asn Gly Thr Ala Val Gly Val Ala Pro Leu
85 90 95

Ala His Ile Ala Ile Tyr Lys Val Cys Gly Ser Asp Gly Val Cys Ser
100 105 110

Asp Val Glu Ile Leu Pro Ala Met Asp Val Ala Ile Asp Asp Gly Val
115 120 125

Asp Ile Leu Ser Ile Ser Leu Gly Gly Thr Ser Asn Pro Phe His Asn
130 135 140

Asp Lys Ile Ala Leu Gly Ala Tyr Ser Ala Thr Glu Arg Gly Ile Leu
145 150 155 160

Val Ser Cys Ser Ala Gly Asn Ser Gly Pro Phe Gln Arg Thr Val Asn
165 170 175

Asn Asp Ala Pro Trp Ile Leu Thr Val Gly Ala Ser Thr His Asp Arg
180 185 190

Lys Leu Lys Ala Thr Val Lys Leu Gly Asn Lys Glu Glu Phe Glu Gly
195 200 205

Glu Ser Ala Tyr His Pro Lys Thr Ser Ser Ser Thr Phe Phe Thr Leu
210 215 220

Phe Asp Val Glu Lys Asp Gly Thr Arg Ala Thr Arg Ala Pro Phe Cys
225 230 235 240

Ile Pro Gly Ser Leu Thr Asp Pro Ser Ile Arg Gly Lys Ile Val Val
245 250 255

Cys Leu Val Gly Gly Val Arg Thr Val Asp Lys Gly Gln Val Val
260 265 270

Lys Asp Ala Gly Gly Val Gly Met Ile Leu Ile Asn Asn Pro Glu Asp
275 280 285

SequenceListing.ST25

Gly Val Thr Lys Ser Ala Glu Ala His Val Leu Pro Ala Leu Asp Val
290 295 300

Ser Asp Ala Asp Gly Lys Ile Leu Ala Tyr Ile Asn Ser Thr Ser
305 310 315 320

Asn Pro Val Ala Ala Ile Thr Phe His Gly Thr Val Leu Gly Asp Lys
325 330 335

Asn Ala Pro Ile Val Ala Ser Phe Ser Ser Arg Gly Pro Ser Glu Ala
340 345 350

Ser Arg Gly Ile Leu Lys Pro Asp Ile Ile Gly Pro Gly Val Asn Val
355 360 365

Leu Ala Ala Trp Pro Thr Ser Val Asp Asn Asn Lys Asn Thr Lys Ser
370 375 380

Thr Phe Asn Ile Ile Ser Gly Thr Ser Met Ser Cys Pro His
385 390 395

<210> 26

<211> 166

<212> PRT

<213> Nicotiana benthamiana

<400> 26

His Ala Ser Asp Gly Ala Gly His Ile Asn Pro Arg Lys Ala Val Asp
1 5 10 15

Pro Gly Leu Val Tyr Asp Ile Gly Ala Gln Asp Tyr Phe Glu Phe Leu
20 25 30

Cys Thr Gln Gln Leu Ser Pro Ser Gln Leu Thr Val Phe Gly Lys Phe
35 40 45

Ser Asn Arg Thr Cys His His Ser Leu Ala Asn Pro Gly Asp Leu Asn
50 55 60

Tyr Pro Ala Ile Ser Ala Val Phe Pro Glu Asp Ala Lys Val Ser Thr
65 70 75 80

Leu Thr Leu His Arg Thr Val Thr Asn Val Gly Ser Pro Ile Ser Asn
85 90 95

Tyr His Val Arg Val Ser Pro Phe Lys Gly Ala Val Val Lys Val Glu
100 105 110

SequenceListing.ST25

Pro Ser Arg Leu Asn Phe Thr Ser Lys His Gln Lys Leu Ser Tyr Lys
115 120 125

Val Ile Phe Glu Thr Lys Tyr Arg Gln Lys Ala Arg Glu Phe Gly Ser
130 135 140

Leu Leu Trp Lys Asp Gly Thr His Lys Val Arg Ser Thr Ile Val Ile
145 150 155 160

Thr Trp Leu Ala Ser Ile
165

<210> 27
<211> 766
<212> PRT
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<222> (455)..(455)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (458)..(458)
<223> Xaa can be any naturally occurring amino acid

<220>
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<222> (556)..(556)
<223> Xaa can be any naturally occurring amino acid

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<223> Xaa can be any naturally occurring amino acid

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<223> Xaa can be any naturally occurring amino acid

SequenceListing.ST25

<220>
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<222> (648)..(648)
<223> Xaa can be any naturally occurring amino acid

<400> 27

Met Ala Arg Pro Gly Gly Met Val Leu Ser Thr Leu Phe Leu Met Leu
1 5 10 15

Phe His Val Phe Val His Ala Gly Gln Asn Gln Lys Lys Thr Tyr Ile
20 25 30

Ile Tyr Met Asp Lys Ser Asn Ile Pro Ala Asp Phe Asp Asp His Thr
35 40 45

Leu Trp Tyr Asp Ser Ser Leu Lys Ser Val Ser Lys Gly Ala Asn Met
50 55 60

Leu Tyr Thr Tyr Asn Asn Val Ile His Gly Tyr Ser Thr Gln Leu Thr
65 70 75 80

Ala Asp Glu Ala Lys Ser Leu Glu Gln Gln Pro Gly Ile Leu Ser Val
85 90 95

His Glu Glu Val Arg Tyr Glu Leu His Thr Thr Arg Ser Pro Thr Phe
100 105 110

Leu Gly Leu Glu Gly Arg Glu Ser Lys Ser Phe Phe Leu Gln Ala Glu
115 120 125

Thr Arg Ser Glu Val Ile Ile Gly Val Leu Asp Thr Gly Val Trp Pro
130 135 140

Glu Ser Lys Ser Phe Asp Asp Thr Gly Leu Gly Pro Val Pro Met Ser
145 150 155 160

Trp Lys Gly Glu Cys Gln Ile Gly Lys Asn Phe Lys Ala Ser Ser Cys
165 170 175

Asn Arg Lys Leu Ile Gly Ala Arg Phe Phe Ser Gln Gly Tyr Glu Ala
180 185 190

Ala Phe Gly Ala Ile Asp Glu Thr Thr Glu Ser Lys Ser Pro Arg Asp
195 200 205

Asp Asp Gly His Gly Thr His Thr Ala Thr Thr Ala Ala Gly Ser Val
210 215 220

SequenceListing.ST25

Val Thr Gly Ala Ser Leu Phe Gly Tyr Ala Ala Gly Thr Ala Arg Gly
225 230 235 240

Met Ala Ser His Ala Arg Val Ala Ala Tyr Lys Val Cys Trp Ala Gly
245 250 255

Gly Cys Phe Ser Ser Asp Ile Leu Ala Gly Met Asp Gln Ala Val Ile
260 265 270

Asp Gly Val Asn Val Leu Ser Leu Ser Leu Gly Gly Thr Ile Ser Asp
275 280 285

Tyr Tyr Arg Asp Ile Val Ala Ile Gly Gly Phe Ser Ala Ala Ser Gln
290 295 300

Gly Ile Phe Val Ser Cys Ser Ala Gly Asn Gly Gly Pro Gly Ser Gly
305 310 315 320

Ser Leu Ser Asn Ala Ala Pro Trp Ile Thr Thr Val Gly Ala Gly Thr
325 330 335

Met Asp Arg Glu Phe Pro Ala Tyr Ile Ser Leu Gly Asn Gly Lys Lys
340 345 350

Phe Ser Gly Val Ser Leu Tyr Ser Gly Lys Ala Leu Pro Ser Ser Val
355 360 365

Met Pro Leu Val Tyr Ala Gly Asn Ala Ser Gln Ala Ser Asn Gly Asn
370 375 380

Leu Cys Thr Ser Gly Ser Leu Ile Pro Glu Lys Val Asp Gly Lys Ile
385 390 395 400

Val Val Cys Asp Arg Gly Met Asn Ala Arg Ala Gln Lys Gly Leu Val
405 410 415

Val Lys Asp Ala Gly Gly Ile Gly Met Ile Leu Ala Asn Thr Asp Ser
420 425 430

Tyr Gly Asp Glu Leu Val Ala Asp Ala His Leu Ile Pro Thr Gly Ala
435 440 445

Val Gly Gln Thr Ala Gly Xaa Leu Ile Xaa Arg Tyr Ile Ala Ser Asp
450 455 460

Ser Asn Pro Ile Thr Thr Ile Ala Phe Gly Gly Thr Lys Leu Gly Val
465 470 475 480

SequenceListing.ST25

Gln Pro Ser Pro Val Val Ala Ala Phe Ser Ser Arg Gly Pro Asn Pro
485 490 495

Ile Thr Pro Glu Ile Leu Lys Pro Asp Leu Ile Ala Pro Gly Val Asn
500 505 510

Ile Leu Ala Gly Trp Thr Gly Lys Val Gly Pro Thr Gly Leu Pro Glu
515 520 525

Asp Thr Arg Asn Val Gly Phe Asn Ile Ile Ser Gly Thr Ser Met Ser
530 535 540

Cys Xaa His Val Ser Gly Leu Ala Ala Xaa Leu Xaa Ala Ala His Pro
545 550 555 560

Glu Trp Ser Xaa Gly Val Ile Arg Ser Ala Leu Met Thr Thr Gly Tyr
565 570 575

Ser Thr His Lys Asn Gly Xaa Met Ile Glu Asp Val Ala Thr Gly Met
580 585 590

Ser Tyr Thr Pro Val Asp His Gly Ala Gly His Val Asn Pro Ala Ala
595 600 605

Ala Met Asn Pro Gly Leu Xaa Tyr Asp Leu Thr Val Asp Asp Tyr Ile
610 615 620

Asn Phe Leu Cys Ala Leu Asp Tyr Ser Pro Ser Met Ile Lys Val Ile
625 630 635 640

Ala Lys Arg Asp Ile Ser Cys Xaa Asn Asn Lys Asp Ile Glu Leu Leu
645 650 655

Thr Leu Ile Thr His Leu Leu Pro Phe Leu Trp Lys Arg Ala Trp Gly
660 665 670

Glu His Ala Asn Ser Ser Ala Pro Thr Val Thr Arg Tyr Thr Arg Thr
675 680 685

Leu Thr Asn Val Gly Asn Pro Ala Thr Tyr Lys Ala Ser Val Ser Ser
690 695 700

Glu Met Gln Glu Val Lys Ile Gln Val Glu Pro Gln Thr Leu Thr Phe
705 710 715 720

Ser Arg Lys Lys Glu Lys Lys Thr Tyr Thr Val Thr Phe Thr Ala Ser
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SequenceListing.ST25

725

730

735

Ser Lys Pro Ser Gly Thr Thr Ser Phe Ala Arg Leu Glu Trp Ser Asp
740 745 750

Gly Gln His Val Val Ala Ser Pro Ile Ala Phe Ser Trp Thr
755 760 765

<210> 28
<211> 350
<212> PRT
<213> Nicotiana benthamiana

<400> 28

Asp Arg Ile Glu Lys Gly Gln Ala Val Lys Asn Ala Gly Gly Val Gly
1 5 10 15

Met Ile Leu Ile Asn Arg Leu Gln Asp Gly Ser Thr Lys Ser Ala Asp
20 25 30

Ala His Val Leu Pro Ala Leu Asp Val Ser Phe Phe Asp Gly Phe Gln
35 40 45

Ile Thr Glu Tyr Met Lys Ser Thr Lys Asn Pro Val Ala Arg Ile Thr
50 55 60

Phe Gln Gly Thr Ile Ile Gly Asp Lys Asn Ala Pro Val Leu Ala Gly
65 70 75 80

Phe Ser Ser Arg Gly Pro Ser Thr Ala Ser Pro Gly Ile Leu Lys Pro
85 90 95

Asp Ile Ile Gly Pro Gly Val Asn Val Leu Ala Ala Trp Pro Thr Ser
100 105 110

Val Glu Asn Lys Thr Asn Thr Lys Ser Thr Phe Asn Ile Ile Ser Gly
115 120 125

Thr Ser Met Ser Cys Pro His Leu Ser Gly Val Ala Ala Leu Leu Lys
130 135 140

Ser Ala His Pro Thr Trp Ser Pro Ala Ala Ile Lys Ser Ala Ile Met
145 150 155 160

Thr Thr Ala Asp Thr Val Asn Leu Ala Asn Asn Pro Ile Leu Asp Glu
165 170 175

Met Leu Arg Pro Ala Asn Ile Phe Ala Ile Gly Ala Gly His Val Asn
Page 43

SequenceListing.ST25
180 185 190

Pro Ser Arg Ala Asn Asp Pro Gly Leu Val Tyr Asp Thr Gln Phe Lys
195 200 205

Asp Tyr Ile Ser Tyr Leu Cys Gly Leu Lys Tyr Thr Asp Arg Gln Met
210 215 220

Gly Ser Leu Leu Gln Arg Arg Thr Ser Cys Ser Lys Val Lys Ser Ile
225 230 235 240

Pro Glu Ala Gln Leu Asn Tyr Pro Ser Phe Ser Ile Ser Leu Gly Ala
245 250 255

Asn Gln Gln Thr Tyr Thr Arg Thr Val Thr Asn Val Gly Glu Ala Met
260 265 270

Ser Ser Tyr Arg Val Lys Ile Val Ser Pro Gln Asn Val Ser Val Val
275 280 285

Val Lys Pro Ser Thr Leu Lys Phe Thr Lys Leu Asn Gln Lys Leu Thr
290 295 300

Tyr Arg Val Thr Phe Ser Thr Thr Thr Asn Ile Thr Asn Met Glu Val
305 310 315 320

Val His Gly Tyr Leu Lys Trp Thr Ser Asp Lys His Phe Val Arg Ser
325 330 335

Pro Ile Ala Val Ile Leu Gln Glu His Glu Thr Pro Glu Asp
340 345 350

<210> 29

<211> 181

<212> PRT

<213> Nicotiana benthamiana

<400> 29

Ala Ile Thr Ala Gly His Val Asn Pro Glu Ser Ala Ile Asp Pro Gly
1 5 10 15

Leu Ile Tyr Asp Thr Asp Thr Ser Asp Tyr Ile Asn Leu Leu Cys Ser
20 25 30

Leu Asn Tyr Thr Glu Lys Glu Met Lys Leu Phe Thr Asn Glu Ser Asn
35 40 45

Pro Cys Ser Gly Phe Thr Gly Ser Pro Leu Asp Leu Asn Tyr Pro Ser
Page 44

SequenceListing.ST25

50

55

60

Leu Ser Val Met Phe Arg Pro Asp Ser Ser Val His Val Val Lys Arg
 65 70 75 80

Thr Leu Thr His Val Ala Val Ser Lys Pro Glu Val Tyr Lys Val Lys
 85 90 95

Ile Leu Asn Leu Asn Ser Glu Lys Val Ser Leu Ser Ile Ser Pro Met
 100 105 110

Glu Leu Met Phe Asn Glu Ser Leu Arg Lys Gln Arg Tyr Met Val Lys
 115 120 125

Phe Glu Ser His His Ile Phe Asn Ser Ser Arg Lys Ile Ala Glu Gln
 130 135 140

Met Ala Phe Gly Ser Ile Ser Trp Glu Ser Glu Lys His Asn Val Arg
 145 150 155 160

Ser Pro Phe Ala Val Met Trp Val Gln Gln Asn Phe Asn Asn Ser Arg
 165 170 175

Leu Tyr Lys Ile Thr
 180

<210> 30
<211> 10
<212> PRT
<213> Nicotiana benthamiana

<400> 30

Thr Thr His Thr Ser Gln Phe Leu Gly Leu
 1 5 10

<210> 31
<211> 14
<212> PRT
<213> Nicotiana benthamiana

<400> 31

Phe Gly Tyr Ala Thr Gly Thr Ala Ile Gly Ile Ala Pro Lys
 1 5 10

<210> 32
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

SequenceListing.ST25

<223> Used in PCR

<400> 32
gtcctaatcc ctagggattt aagg

24

<210> 33
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Used in PCR

<400> 33
ctttggaaat tgcagaaac

19

<210> 34
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Used in PCR

<400> 34
gtttctgcaa ttccaaag

19

<210> 35
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Used in PCR

<400> 35
gaattcgggg taccgcggcc gcgatatcct gcagggcggtt aactc

45

<210> 36
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Used in PCR

<400> 36
gaattcggta ccctgcagga tatgcggcc gcggcgtaa ctcgg

45

<210> 37
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Used in PCR

<400> 37

SequenceListing.ST25

tggttctgca gttatgcata ggcgtgatta tcggagttat ag

42

<210> 38
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Used in PCR

<400> 38
tttccttttg cggccgcgtg agggcaagac attgatg

37

<210> 39
<211> 249
<212> PRT
<213> Nicotiana benthamiana

<400> 39

Gly Val Ile Ile Gly Val Ile Asp Thr Gly Ile Val Pro Asp His Pro
1 5 10 15

Ser Phe Ser Asp Val Gly Met Pro Pro Pro Ala Lys Trp Lys Gly
20 25 30

Phe Cys Glu Ser Asn Phe Thr Thr Lys Cys Asn Asn Lys Leu Ile Gly
35 40 45

Ala Arg Ser Phe Pro Leu Asp Asn Gly Pro Ile Asp Glu Asn Gly His
50 55 60

Gly Thr His Thr Ala Ser Thr Ala Ala Gly Ala Phe Val Lys Gly Ala
65 70 75 80

Asn Val Phe Gly Asn Ala Asn Gly Thr Ala Val Gly Val Ala Pro Leu
85 90 95

Ala Tyr Ile Ala Ile Tyr Lys Val Cys Gly Ser Asp Gly Val Cys Ser
100 105 110

Asp Val Glu Ile Leu Ala Ala Met Asp Val Ala Ile Asp Asp Gly Val
115 120 125

Asp Ile Leu Ser Ile Ser Leu Gly Gly Thr Ser Asn Pro Phe His Asn
130 135 140

Asp Lys Ile Ala Leu Gly Ala Tyr Ser Ala Thr Glu Arg Gly Ile Leu
145 150 155 160

Val Ser Cys Ser Ala Gly Asn Ser Gly Pro Phe Gln Arg Thr Val Asp
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SequenceListing.ST25

165

170

175

Asn Asp Ala Pro Trp Ile Leu Thr Val Gly Ala Ser Thr His Asp Arg
 180 185 190

Lys Leu Lys Ala Thr Val Lys Leu Gly Asn Lys Glu Glu Phe Glu Gly
 195 200 205

Glu Ser Ala Tyr His Pro Lys Thr Ser Asn Ser Thr Phe Phe Thr Leu
 210 215 220

Phe Asp Val Glu Lys Ile Val His Glu Gln Pro Val Ala Pro Phe Cys
 225 230 235 240

Ile Pro Gly Ser Leu Thr Asp Pro Ser
 245

<210> 40
 <211> 249
 <212> PRT
 <213> Nicotiana benthamiana

<400> 40

Gly Val Ile Ile Gly Val Ile Asp Thr Gly Ile Val Pro Asp His Pro
 1 5 10 15

Ser Phe Ser Asp Val Gly Met Pro Pro Pro Ala Lys Trp Lys Gly
 20 25 30

Phe Cys Glu Ser Asn Phe Thr Thr Lys Cys Asn Asn Lys Leu Ile Gly
 35 40 45

Ala Arg Ser Phe Pro Leu Asp Asn Gly Pro Ile Asp Glu Asn Gly His
 50 55 60

Gly Thr His Thr Ala Ser Thr Ala Ala Gly Ala Phe Val Lys Gly Ala
 65 70 75 80

Asn Val Phe Gly Asn Ala Asn Gly Thr Ala Val Gly Val Ala Pro Leu
 85 90 95

Ala Tyr Ile Ala Ile Tyr Lys Val Cys Gly Ser Asp Gly Val Cys Ser
 100 105 110

Asp Val Glu Ile Leu Ala Ala Met Asp Val Ala Ile Asp Asp Gly Val
 115 120 125

Asp Ile Leu Ser Ile Ser Leu Gly Gly Thr Ser Asn Pro Phe His Asn
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SequenceListing.ST25

130

135

140

Asp Lys Ile Ala Leu Gly Ala Tyr Ser Ala Thr Glu Arg Gly Ile Leu
145 150 155 160

Val Ser Cys Ser Ala Gly Asn Ser Gly Pro Phe Gln Arg Thr Val Asp
165 170 175

Asn Asp Ala Pro Trp Ile Leu Thr Val Gly Ala Ser Thr His Asp Arg
180 185 190

Lys Leu Lys Ala Thr Val Lys Leu Gly Asn Lys Glu Glu Phe Glu Gly
195 200 205

Glu Ser Ala Tyr His Pro Lys Thr Ser Asn Ser Thr Phe Phe Thr Leu
210 215 220

Phe Asp Val Glu Lys Ile Val His Glu Gln Pro Val Ala Pro Phe Cys
225 230 235 240

Ile Pro Gly Ser Leu Thr Asp Pro Ser
245